

ZEMCO Industries, Inc.)	Departmental
Cumberland County)	Findings of Fact and Order
Portland, Maine)	Air Emission License
A-753-71-D-R/T)	

After review of the air emissions license renewal/transfer application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

ZEMCO Industries, Inc. (ZEMCO) of Portland, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their meat processing and packaging facility. Air Emission License A-753-71-A-N was issued on December 8, 1998 and amendment A-753-71-B-A was issued May 2, 2000.

B. License Transfer

1. ZEMCO has requested the transfer of Air Emission License A-753-71-A-N and amendment A-753-71-B-A from Jordan's Meats, Inc. to ZEMCO Industries, Inc. through a license transfer application dated September 25, 2003.
2. The full name and address of the new owner is:

ZEMCO Industries, Inc.
38 India Street
Portland ME 04112

The official date for the merger was June 30, 2001 and ZEMCO has assumed all obligations of the facility. A copy of the transaction was submitted to the Bureau of Air Quality on September 29, 2003.

3. ZEMCO certifies that there will be no increase in air emissions beyond that provided for in the existing license, either in quantity or type.
4. ZEMCO states that they possess the technical and financial capacity to operate the facility and comply with all the conditions of the applicable

license. The existing staff has been maintained throughout the merger. Thus, the applicant feels confident that there is sufficient expertise in running the plant so as to operate completely within compliance of the license.

C. Emission Equipment

ZEMCO is authorized to operate the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #1	5.62	37.5 gal/hr	#4 oil, 1.3%	B-1
		5510 scf/hr	Natural gas	
Boiler #2	10.2	10,000 scf/hr	Natural gas	B-2
Water Heater #1	2.07	2030 scf/hr	Natural gas	HW-1
Water Heater #2	2.07	2030 scf/hr	Natural gas	HW-2
Water Heater #3	2.07	2030 scf/hr	Natural gas	HW-3

Process Equipment

<u>Equipment</u>	<u>Solvent</u>
Parts Cleaner	CITRA-SOLV

Additionally, ZEMCO operates 12 smokehouses utilizing steam heat or a combination of steam heat and small (<1.0 MMBtu/hr) indirect natural gas-fired burners. The units are operated using liquid smoke to preserve and flavor the food. The use of liquid smoke versus naturally generated smoke has significantly reduced or eliminated particulate emissions and odors from most meat smoking operations. The smokehouses are considered insignificant activities and are included on the Air Emission License for inventory purposes only.

D. Application Classification

The application for ZEMCO does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units in addition to the license transfer.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers

Boiler #1 is a Cleaver Brooks package boiler, manufactured in 1961, that fires #4 fuel oil with a maximum sulfur content of 1.3% by weight or natural gas. The boiler has a maximum design heat input capacity of 5.62 MMBtu/hr. Boiler #1 is not subject to EPA New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, for boilers with a heat input of 10 MMBtu/hr or greater and manufactured after July 9, 1989.

BPT for Boiler #1 is the following:

1. Use of natural gas and #4 fuel oil with a maximum sulfur content not to exceed 1.3%.
2. NO_x emission limits are based on data for boilers of similar size and age and firing #4 fuel oil or natural gas.
3. CO and VOC emission limits are based on AP-42 data for commercial/industrial boilers smaller than 100 MMBtu/hr.
4. MEDEP Chapter 103 regulates PM emission limits for fuel burning equipment greater than 3 MMBtu/hr. PM₁₀ emission limits are derived from the PM limits.
5. Visible emissions from Boiler #1 (stack B1) firing fuel oil shall not exceed 30% opacity on a 6 minute block average, except for no more than 3 six-minute block averages in a 3 hour period. Visible emissions from Boiler #1 (stack B1) firing natural gas shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 3-hour period.

Boiler #2 is a Cleaver Brooks firetube boiler, manufactured in 2000, that fires natural gas with a maximum design heat input capacity of 10.2 MMBtu/hr. Boiler #2 employs flue gas recirculation (FGR) and good combustion and maintenance practices to meet BPT. It is subject to NSPS 40 CFR Part 60, Subpart Dc.

BPT for Boiler #2 is the following:

1. Use of natural gas.
2. PM, PM₁₀, SO₂, NO_x, CO and VOC emission factors are based on manufacturer's data for Boiler #2.
3. Visible emissions from Boiler #2 shall not exceed an opacity of 10% on a 6-minute block average basis, except for no more than one 6-minute block average in a 3-hour period.

C. Water Heaters #1 - #3

ZEMCO operates three small water heaters, each with a maximum design heat input of 2.07 MMBtu/hr. Each water heater fires natural gas, and exhausts to its own stack.

BPT for the water heaters is the following:

1. Use of natural gas as fuel.
2. PM, SO₂, NO_x, CO and VOC emission limits based on AP-42 data dated 7/98 for natural gas fired units. PM₁₀ emission limits based on the PM limits.
3. Visible emissions from the stack of each water heater (stacks HW1, HW2 and HW3) shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 3-hour period.

D. Parts Washer

ZEMCO operates a parts washer from which very small quantities of VOC are emitted. Since the total quantity of VOC emitted from the cleaning stations is minimal, operation of the Parts Washer in accordance with the operational standards of MEDEP Chapter 130 is determined to be BPT for the Parts Washer.

E. Annual Emission Restrictions

Annual emissions are calculated based on worst-case emission scenarios. In a worst-case scenario, firing fuel oil continuously in Boiler #1 results in higher emissions for PM, PM₁₀, SO₂ and NO_x and firing natural gas continuously results in higher emissions for CO and VOC. Annual emissions have been calculated according to this worst-case scenario and include continuous operation of Boiler #2 and Water Heaters #1, #2 and #3 firing natural gas.

ZEMCO Industries, Inc.
Cumberland County
Portland, Maine
A-753-71-D-R/T

)
)
)
5

Departmental
Findings of Fact and Order
Air Emission License

Total Allowable Annual Emissions for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Boiler #1</u>		<u>Boiler #2</u>	<u>Water Heaters</u> (combined)	<u>Tons/year</u>
	#4 fuel oil	Nat. gas			
PM	2.96	--	0.45	0.21	3.62
PM ₁₀	2.96	--	0.45	0.21	3.62
SO ₂	33.7	--	0.05	0.02	33.77
NO _x	9.9	--	3.13	2.67	15.7
CO	--	2.03	6.71	2.24	10.98
VOC	--	0.14	0.72	0.15	1.01

III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the total facility emissions, ZEMCO is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

Based on the above, the Department concludes that the applicant for the air emission license transfer has the capacity to satisfy all applicable statutory criteria and hereby APPROVES the transfer of Air Emission License A-753-71-A-N and A-753-71-B-A, from Jordan's Meats, Inc. to ZEMCO Industries, Inc., subject to all conditions attached to them.

The Department hereby grants Air Emission License A-753-71-D-R/T subject to the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an

- application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

- (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

- (16) Boiler #1
- (i) Boiler #1 shall fire natural gas or #4 fuel oil with a sulfur content not to exceed 1.3% by weight. Compliance shall be demonstrated through purchase receipts showing the sulfur content of the fuel. [Chapter 115, BPT]
- (ii) Boiler #1 shall not exceed the following emission limits [Chapter 115, BPT]:

Boiler #1 Emission Limits

Equipment	From firing fuel oil:		From firing natural gas:	
	lb/MMBtu	lb/hr	lb/MMBtu	lb/hr
PM	0.12	0.68	0.05	0.28
PM₁₀	--	0.68	--	0.28
SO₂	--	7.68	--	0.01
NO_x	--	2.25	--	0.56
CO	--	0.19	--	0.47
VOC	--	0.02	--	0.03

Compliance shall be demonstrated by request of the Department through stack testing in accordance with the applicable test methods found in 40 CFR Part 60, Appendix A.

- (iii) Visible emissions from Boiler #1 (stack B1) firing fuel oil shall not exceed 30% opacity on a 6 minute block average, except for no more than 3 six-minute block averages in a 3 hour period. Visible emissions from Boiler #1 (stack B1) firing natural gas shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 3-hour period. [MEDEP Chapter 101]

(17) **Boiler #2**

- (i) Boiler #2 shall fire natural gas. [MEDEP Chapter 115, BPT]
- (ii) Boiler #2 shall not exceed the following emission limits [MEDEP Chapter 115, BPT]:

Boiler #2 Emission Limits

	lb/MMBtu	lb/hr
PM	0.01	0.10
PM₁₀	--	0.10
SO₂	--	0.01
NO_x	--	0.72
CO	--	1.53
VOC	--	0.16

Compliance shall be demonstrated by request of the Department through stack testing in accordance with the appropriate method found in 40 CFR Part 60, Appendix A.

- (iii) Boiler #2 is subject to the requirements of Federal New Source Performance Standards 40 CFR 60, Subpart Dc. ZEMCO shall comply with all applicable requirements of the subpart.
- (iv) ZEMCO shall operate Flue Gas Recirculation at all times that Boiler #2 is in operation. [MEDEP Chapter 115, BPT]
- (v) Visible emissions from Boiler #2 shall not exceed an opacity of 10% on a 6-minute block average basis, except for no more than one 6-minute block average in a 3-hour period. [MEDEP Chapter 101]

(18) **Water Heaters #1, #2 and #3**

- (i) Water Heaters #1, #2 and #3 shall fire natural gas. [MEDEP Chapter 115, BPT]
- (ii) Emissions from Water Heaters #1, #2 and #3 shall not exceed the following [MEDEP Chapter 115, BPT]:

Water Heaters Emission Limits
(per Water Heater)

Pollutant	lb/hr
PM	0.02
PM₁₀	0.02
SO₂	0.01
NO_x	0.21
CO	0.17
VOC	0.02

Compliance shall be demonstrated by request of the Department through stack testing in accordance with the applicable test methods found in 40 CFR Part 60, Appendix A.

- (iii) Visible emissions from the stack of each water heater (stacks HW1, HW2 and HW3) shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 3-hour period.

(19) **Parts Washer**

The parts washer is subject to the operational and record keeping requirements of MEDEP Chapter 130 which include, but are not limited to, the following:

- (i) ZEMCO shall keep records of the amount of solvent added to each parts washer.
- (ii) ZEMCO shall attach a permanent conspicuous label to each unit summarizing the following operational standards of Chapter 130:
 - a. Equip each cold cleaning degreaser with a cover that is easily operated with one hand if:
 - the solvent vapor pressure is greater than 15 millimeters of mercury measured at 100 °F by ASTM D323-89; or,
 - the solvent is agitated; or,
 - the solvent is heated.
 - b. Close the covers (if required by (a) above) on all solvent degreasing tanks when the tanks are not in use;
 - c. Drain the cleaned parts for at least fifteen (15) seconds or until dripping stops;
 - d. If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized or shower-type spray) at a pressure that does not exceed ten (10) pounds per square inch gauge pressure (psig);
 - e. Do not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
 - f. Minimize drafts to less than 40 meters/minute; and,
 - g. Refrain from operating the cold cleaning degreaser upon the occurrence of any visible solvent leak until such leak is repaired.

ZEMCO Industries, Inc.
Cumberland County
Portland, Maine
A-753-71-D-R/T

)
)
)
11

Departmental
Findings of Fact and Order
Air Emission License

[MEDEP Chapter 130]

In addition, ZEMCO shall not use any halogenated solvents in the parts washer [MEDEP Chapter 115, BPT].

- (20) ZEMCO shall pay the annual air emission license fee within 30 days of December 31 of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.
- (21) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____

DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: September 29, 2003

Date of application acceptance: October 7, 2003

Date filed with the Board of Environmental Protection: _____

This Order prepared by Rachel E. Pilling, Bureau of Air Quality.